

ABSTRACT

The invention relates to an electron beam exposure apparatus for transferring a pattern onto the surface of a target, comprising:

- 5    - a beamlet generator for generating a plurality of electron beamlets;
- a modulation array for receiving said plurality of electron beamlets, comprising a plurality of modulators for modulating the intensity of an electron beamlet;
- a controller, connected to the modulation array for individually controlling the modulators,
- 10   - an adjustor, operationally connected to each modulator, for individually adjusting the control signal of each modulator;
- a focusing electron optical system comprising an array of electrostatic lenses wherein each lens focuses a corresponding individual beamlet, which is transmitted by said modulation array, to a cross section smaller than 300 nm,
- 15   and
- a target holder for holding a target with its exposure surface onto which the pattern is to be transferred in the first focal plane of the focusing electron optical system.